

REMARKS

Claims 1 and 4-15 are pending in the application; claims 2 and 3 are canceled.

Information Disclosure Statement

A corrected sheet PTO-1449 is submitted herewith showing the correct patent number 4,617,882.

Specification

The informalities in the specification have been corrected as follows:

Fig. 5 has been corrected in that reference numeral "24" has been changed to "27" as shown in the originally filed Fig. 5; a replacement drawing sheet is attached.

Fig. 2 has been corrected in that reference numeral 6 on the left hand side of the drawing is now shown as "6'"; a replacement drawing sheet is attached.

The paragraph 0015 of the specification has been corrected to read "Fig. 5".

Rejection under 35 U.S.C. 102

Claims 1, 11-13 stand rejected under 35 U.S.C. 102(b) as being anticipated by *Mikame* (US 6,244,230).

Claim 1 has been amended by introducing the features of claims 2 and 3 so that the above rejection no longer applies.

Rejection under 35 U.S.C. 103

Claims 2, 6 and 10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over *Mikame* (US 6,244,230).

Claim 2 and claim 3 have been incorporated into claim 1 so that the above rejection no longer applies.

Claim 3 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Mikame* (US 6,244,230) and *Elrod et al.* (US 5,417,186).

Claim 1 has been amended to include the features of claims 2 and 3 and further sets forth that the spacer member is a force transmitting element between the drive wheel and the gear. Even though the exact wording "force transmitting element" is not as such disclosed in the specification, the configuration of the spacer member and its arrangement between the drive wheel and the gear ring make clear that the drive wheel transmits forces

onto the gear ring through the spacer member. Note the disclosure of paragraph 0017. It is disclosed in this paragraph that the gear ring 10 is a monolithic part of the stator 11 that has a cylindrical wall 13. The drive wheel 6 and the cylindrical wall have mating recess 14 and projection 15 that provide a radial alignment of the chain wheel 6 relative to the stator 11. The spacer member 9 and the chain wheel 6 are pushed onto the cylindrical wall 13 in the aligned position and, subsequently, the spacer member 9 and the chain wheel 6 are connected by screws 16 to the stator 11 and the gear ring 10. Thus the spacer member 9 is a force transmitting member between the drive wheel and the gear ring.

The prior art *Mikame* discloses an intake camshaft 622 and an exhaust camshaft 623 that are arranged parallel to one another and are drivingly connected to a crankshaft by a timing belt acting on the exhaust timing pulley (drive wheel) 624a. The ends of the camshafts remote from the pulley 624a carry gears 624b and 625b that mesh with one another so that torque is transmitted from the exhaust camshaft 623 to the intake camshaft 622. The drive wheel (pulley) 624a is positioned at one end and the gear 624b at the opposite end of the camshaft; this is said to be beneficial (see paragraph bridging columns 14 and 15).

The prior art reference *Elrod et al.* shows in Figs. 16 and 17 a pulley wheel (drive wheel) 35 about which the drive chain is guided (col. 8, lines 50ff) so that the camshaft is driven by the crankshaft. A gear transmission between two camshafts is not shown in the prior art reference to *Elrod et al.* Therefore, there is no incentive to look at this reference in order to find a solution to the problem addressed in the instant application.

The spacer 155 is a bushing through which a screw 55 is passed (col. 10, lines 7ff). The bushing is received in cutouts 164 of a splined member 160; see col. 17, lines 53ff; see Figs. 16 and 17. The splined member 160 having the cutouts 164 forms the actual spacer between the flange 53 and the splined member 50 (see Fig. 16) not the bushing 155 that is simply a guide sleeve for the screw 55 and does not transmit any forces. Force transmission is not provided by the bushing as evidenced by the fact the bushing can be eliminated by having sleeves formed integrally with the collar 51; this will simply assembly (see col. 17, lines 55ff).

Moreover, there is no teaching or any suggestion in the prior art that would lead a

- 7 -

1/26/05: Amd for Ser. No. 10/708,335 - Inventor(s): Knecht et al. - Filing Date: 2/25/2004

person skilled in the art to arranging the drive wheel 624a and the gear wheel 624b of *Mikame* axially adjacent to one another on the camshaft 623. The reference to *Mikame* clearly teaches to arrange the elements 624a, 624b on opposed ends of the shaft as this is said to be beneficial.

Even if a person skilled in the art were to arrange the drive wheel and the gear wheel adjacent to one another, there is no incentive to position a spacer member as a force transmitting element between the drive wheel and the gear wheel as both are mounted on the camshaft and the torque of the crankshaft is directly transmitted through the pulley 624a onto the camshaft and the attached exhaust gear 624b.

Claim 1 as amended is therefore not obvious in view of the cited prior art references.

Reconsideration and withdrawal of the rejection of claim 3 pursuant to 35 USC 103(a) are therefore respectfully requested.

Claims 14 and 15 stands rejected under 35 U.S.C. 103(a) as being unpatentable over *Mikame* (US 6,244,230) and *Sugano et al.* (US 5,735,239).

Claims 14 and 15 depend from amended claim 1 and should be allowable as dependent claims.

ALLOWABLE SUBJECT MATTER

Claims 4, 5, 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim 4 has been amended to include the features of claims 1 and 2 and should thus be allowable.

Claim 5 has been amended to include the features of claims 1 and 2 and should thus be allowable.

Claim 7 has been amended to include the features of claims 1 and 2 and should thus be allowable together with dependent claims 8 and 9.

CONCLUSION

In view of the foregoing, it is submitted that this application is now in condition for allowance and such allowance is respectfully solicited.

Should the Examiner have any further objections or suggestions, the undersigned

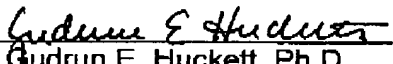
- 8 -

1/26/05: Amd for Ser. No. 10/708,335 - Inventor(s): Knecht et al. - Filing Date: 2/25/2004

would appreciate a phone call or e-mail from the examiner to discuss appropriate amendments to place the application into condition for allowance.

Authorization is herewith given to charge any fees or any shortages in any fees required during prosecution of this application and not paid by other means to Patent and Trademark Office deposit account 50-1199.

Respectfully submitted on January 26, 2005.


Ms. Gudrun E. Huckett, Ph.D.
Patent Agent, Registration No. 35,747
Lönsstr. 53
42289 Wuppertal
GERMANY
Telephone: +49-202-257-0371
Facsimile: +49-202-257-0372
gudrun.draudt@t-online.de

GEH.

Encl.: - time extension petition (1 sheet)
- replacement drawing sheet/s Figs. 2 and 5 (2 sheet/s)
- corrected sheet PTO-1449

- 9 -

1/26/05: Amd for Ser. No. 10/708,335 - Inventor(s): Knecht et al. - Filing Date: 2/25/2004